

KREUTZER et al. -- 09/810,521
Client/Matter: 021123-0278416

I. AMENDMENT TO THE CLAIMS

1. (Currently Amended) An L-Lysine-producing bacterium of the species *Corynebacterium glutamicum* comprising:

- a) an overexpressed wild type *pyc* gene of *Corynebacterium glutamicum* encoding pyruvate carboxylase, wherein overexpression of said *pyc* gene is achieved by increasing the copy number of said *pyc* gene, and
- b) an overexpressed wild type *dapA* gene of *Corynebacterium glutamicum* encoding dihydrodipicolinate synthase, wherein overexpression of said *dapA* gene is achieved by using a *dapA* ~~promoter~~ promoter selected from the group consisting of: the *dapA* promoter comprising the MC20 mutation as set forth in SEQ ID NO: 5 and the *dapA* promoter comprising the MA16 mutation as set forth in SEQ ID NO: 6, and

whereby said overexpression of said wild type *pyc* gene of *Corynebacterium glutamicum* or said wild type *dapA* gene of *Corynebacterium glutamicum* gives a results in pyruvate carboxylase activity or dihydrodipicolinate synthase activity above the level of that found in a wild type *Corynebacterium glutamicum*.

2-15. (Canceled)

16. (Previously Presented) An *Escherichia coli* K-12 strain DH5 α /pEC7lysE_{pyc}, deposited as DSM12872.

17-21. (Canceled)

22. (Previously Presented) An isolated DNA comprising the nucleotide sequence shown in SEQ ID NO: 5.

23. (Previously Presented) An isolated DNA comprising the nucleotide sequence shown in SEQ ID NO: 6.

24-26. (Canceled)

27. (Currently Amended) The bacterium of claim 1 further comprising an overexpressed *lysC* gene of *Corynebacterium glutamicum* encoding aspartate kinase, wherein said gene is expressed at a level that is higher than its expression level in wild type *Corynebacterium glutamicum* by increasing the copy number of said gene.

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28. (Previously Presented) The bacterium of claim 27, wherein said aspartate kinase is resistant to inhibition by lysine and/or threonine.

29. (Canceled)

30. (Currently Amended) An L-Lysine-producing bacterium of the species *Corynebacterium glutamicum* comprising:

- a) an overexpressed wild type *pyc* gene of *Corynebacterium glutamicum* encoding pyruvate carboxylase, wherein overexpression of said *pyc* gene is achieved by increasing the copy number of said *pyc* gene,
- b) an overexpressed wild type *dapA* gene of *Corynebacterium glutamicum* encoding dihydrodipicolinate synthase, wherein overexpression of said *dapA* gene is achieved by using a *dapA* promoter ~~promoter~~ selected from the group consisting of: the *dapA* promoter comprising the MC20 mutation as set forth in SEQ ID NO: 5 and the *dapA* promoter comprising the MA16 mutation as set forth in SEQ ID NO: 6, and
- c) an overexpressed wild type *lysE* gene of *Corynebacterium glutamicum* encoding a lysine export carrier, wherein overexpression of said *lysE* gene is achieved by increasing the copy number of said *lysE* gene, and

wherein the overexpressed genes are expressed at levels that are higher than their respective expression levels in wild type *Corynebacterium glutamicum*.

31. (Currently Amended) The bacterium of claim 30 further comprising an overexpressed *lysC* gene of *Corynebacterium glutamicum* encoding aspartate kinase wherein said gene is expressed at a level that is higher than its expression level in wild type *Corynebacterium glutamicum* and overexpression of said gene is achieved by increasing the copy number of said gene.

32. (Previously Presented) The bacterium of claim 31, wherein said overexpressed aspartate kinase is resistant to inhibition by lysine and/or threonine.